

the state generator **1820**. A state prior to a current process may be updated based on the determination made by a reward and a respective state. For the same Q-state, a random value may be selected. According to an embodiment, a power management operation selected for a given state may be determined by using any one of various methods, for example, a well-known algorithmic temperature function or Boltzmann Probability.

[0163] The embodiments may be written as computer instructions or programs stored in a computer-readable storage medium and may be implemented in computers or processors that execute the programs.

[0164] Examples of the computer-readable storage medium include electromagnetic storage media (e.g., ROM, floppy disks, hard disks, flash memory, solid-state drives (SSDs), etc.), optical recording media (e.g., compact disc read-only memories (CD-ROMs), or digital versatile discs (DVDs)), etc.

[0165] It should be understood that embodiments described herein should be considered in a descriptive sense only and not for purposes of limitation. Descriptions of features or aspects within each embodiment should typically be considered as available for other similar features or aspects in other embodiments.

[0166] While one or more embodiments have been described with reference to the figures, it will be understood by those of ordinary skill in the art that various changes in form and details may be made therein without departing from the spirit and scope as defined by the following claims.

What is claimed is:

1. A method of managing power of an electronic device, the method comprising:

obtaining operation information related to an operation from among operations performed by the electronic device, the operation being recognizable to a user via a product of hardware processing performed by hardware included in the electronic device;

obtaining load information related to a load generated by the operation; and

performing power management on the hardware included in the electronic device based on the operation information and the load information.

2. The method of claim 1, wherein the performing of the power management comprises modifying an operating property of the hardware.

3. The method of claim 2, wherein the modifying of the operating property comprises adjusting at least one of a voltage and a frequency of the hardware.

4. The method of claim 1, wherein the operation information comprises a number of frames generated by the hardware per unit time.

5. The method of claim 1, further comprising obtaining power consumption information of the electronic device, wherein the power management is performed on the hardware included in the electronic device based on the power consumption information.

6. The method of claim 1, wherein the performing of the power management comprises:

obtaining feedback information regarding a power management performance result; and

performing power management on the hardware based on the feedback information, wherein the feedback information comprises a change in the operation information.

7. The method of claim 1, wherein the load information comprises a load type determined according to a type of an application being executed by the electronic device.

8. The method of claim 1, wherein the performing of the power management comprises controlling the hardware to perform the operation recognizable to the user.

9. An electronic device comprising:

hardware configured to execute a process;

an output unit configured to output a process result of the hardware to a user; and

a controller configured to:

obtain operation information related to an operation from among operations performed by the electronic device, the operation being recognizable to the user via the process result of the hardware,

obtain load information related to a load generated by the operation, and

perform power management on the hardware based on the operation information and the load information.

10. The electronic device of claim 9, wherein the controller is further configured to control the hardware to modify an operating property of the electronic device.

11. The electronic device of claim 10, wherein the controller is further configured to adjust at least one of a voltage and a frequency of the hardware.

12. The electronic device of claim 9, wherein the operation information comprises information about a number of frames generated by the hardware per unit time.

13. The electronic device of claim 9, wherein the controller is further configured to obtain power consumption information of the electronic device, and perform power management on the hardware based on the power consumption information.

14. The electronic device of claim 9, wherein the controller is further configured to obtain feedback information regarding a power management performance result, and perform power management on the hardware based on the feedback information,

wherein the feedback information comprises a change in the operation information.

15. The electronic device of claim 9, wherein the load information comprises information about a load type determined according to a type of an application being executed by the electronic device.

16. The electronic device of claim 9, wherein the controller is further configured to control the hardware to perform the operation recognizable to the user.

17. A non-transitory computer-readable storage medium storing instructions which, when executed by a processor, cause the processor to perform operations comprising:

obtaining operation information related to an operation from among operations performed by an electronic device, the operation being recognizable to a user via a product of hardware processing performed by hardware included in the electronic device;

obtaining load information related to a load generated by the operation; and

performing power management on the hardware included in the electronic device based on the operation information and the load information.

18. The non-transitory computer-readable storage medium of claim 17, wherein the performing of the power management comprises adjusting at least one of a voltage and a frequency of the hardware.